IAEECC RESOLUTION NO. 5, S. 2022

DIRECTING ALL GOVERNMENT ENTITIES (GEs), INCLUDING THE LOCAL GOVERNMENT UNITS (LGUs) AND FOREIGN SERVICE POSTS TO OBSERVE THE APPROVED GOVERNMENT ENERGY MANAGEMENT PROGRAM (GEMP) GUIDELINES

WHEREAS, Republic Act No. (RA) 11285, or the Energy Efficiency and Conservation (EEC) Act, institutionalizes energy efficiency and conservation as a national way of life, enhances the efficient use of energy, and grants incentives to energy efficiency and conservation programs and projects;

WHEREAS, DOE Department Circular No. DC2019-11-0014, or the Implementing Rules and Regulations of RA 11285 (EEC-IRR), provides for the guidelines for the full implementation of the EEC Act and for the expansion of the Government Energy Management Program (GEMP) coverage to include all government entities, including departments, bureaus, offices, agencies, government-owned-or-controlled corporations (GOCCs), and their subsidiaries, self-governing boards or commissions, and other instrumentalities of the government, as well as state universities and colleges (SUCs), and political subdivisions of the local government units (LGUs);

WHEREAS, Section 5 of the EEC Act states that the DOE shall take the lead in the implementation of the law, and shall be responsible for the planning, formulation, development, implementation, enforcement, and monitoring of energy management policies and other related energy efficiency and conservation plans and programs;

WHEREAS, DOE Department Order (DO) No. DO2020-01-0001 organizes the Inter-Agency Energy Efficiency and Conservation Committee (IAEECC) and lays down its powers and functions to primarily evaluate and approve government energy efficiency projects, and to provide strategic direction in the implementation of the GEMP;

WHEREAS, IAEECC Resolution No. 1, s. 2020 directs all government agencies to comply with the GEMP, orders the DOE to conduct energy audits, spot checks, technical analysis and other research activities relative to energy efficiency projects of all government entities for the improvements of the GEMP;

WHEREAS, on June 23, 2021, the proposed GEMP Guidelines supporting the implementation of the EEC Act and EEC-IRR was submitted and revised by the Department of Energy based on the comments of the IAEECC members;

WHEREAS, on September 09, 2021, the IAEECC affirmed that the GEMP Guidelines be approved via *ad referendum* subject to revisions based on additional comments made by the IAEECC members;

WHEREAS, Section 4 of DOE DO No. DO2020-01-0001 provides that the IAEECC shall act as a collegial body, and approval of its actions may be made by a simple majority;

NOW, THEREFORE, BE IT RESOLVED, AS IT IS HEREBY RESOLVED by the members of the IAEECC:

RESOLVED, that the IAEECC approves the proposed GEMP Guidelines, copies of which are hereto attached;

RESOLVED FURTHER, that this Resolution be approved and disseminated to all concerned government entities for adoption and implementation; and

RESOLVED FINALLY , that this Resolution shall take effect upon publication in the Official Gazette and at least two (2) newspapers of general circulation. A copy of this Resolution shall be filed with the University of the Philippines Law Center-Office of the National Administrative Register.

ADOPTED, in Energy Center, Rizal Drive, Bonifacio Global City, Taguig City, Metro Manila.

(SGD.) ALFONSO G. CUSI
Secretary, Department of Energy
and Chairperson, IAEECC

IAEECC MEMBERS:

(SGD.) TINA ROSE MARIE L. CANDA
Officer-In-Charge, Department of Budget and Management

(SGD.) CARLOS G. DOMINGUEZ
Secretary
Department of Finance

(SGD.) EDUARDO M. AÑO
Secretary, Department of the Interior and Local Government

(SGD.) ROGER G. MERCADO
Acting Secretary, Department of Public Works and Highways

(SGD.) RAMON M. LOPEZ
Secretary, Department of Trade and Industry

(SGD.) FORTUNATO T. DELA PEÑA
Secretary, Department of Science and Technology

(SGD.) ARTHUR P. TUGADE
Secretary, Department of Transportation

(SGD.) KARL KENDRICK T. CHUA
Secretary, National Economic and Development Authority

CERTIFIED CORRECT:

(SGD.) PATRICK T. AQUINO, CESO III
Director, IAEECC Secretariat

ANNEX A

Government Energy Management Program (GEMP) Guidelines

Pursuant to Section 35 of Republic Act No. (RA) 11285 or the Energy Efficiency and Conservation Act-Implementing Rules and Regulations (EEC-IRR) and supplemental to IAEECC Resolution No. 01, s. 2020, as part of its mandate of evaluating and approving government energy efficiency projects, and providing strategic direction in the implementation of the Government Energy Management Program (GEMP), hereby promulgates and adopts the following:

PART I

General Terms

SECTION 1. *Title*. — These rules shall be known as the GEMP Guidelines.

SECTION 2. *Scope and Purpose*. — The GEMP Guidelines shall cover all Government Entities (GE), including all Departments, Bureaus, Offices, Agencies, Branches and Instrumentalities or Political Subdivision, Government Financing Institutions (GFIs), Government-Owned and Controlled Corporations (GOCCs), including Subsidiaries or other Self-Governing Boards or Commissions of the Government, Local Government Units (LGUs), State Universities and Colleges (SUCs), and Foreign Service Posts.

The GEMP Guidelines are hereby issued for the following purposes:

2.1 To govern the processes and procedures for the implementation of the GEMP as mandated under the EEC Act;

2.2 To provide additional guidelines on the implementation of the GEMP pursuant to the requirements of Rule VIII of the EEC-IRR; and

2.3 To provide the guidelines for the evaluation, approval, procurement, implementation, and financing of GEEPs including their use of energy efficiency (EE) cost reductions realized through the implementation of GEEPs pursuant to Rule IX of the ECC-IRR.

Subject to Section 5 of the GEMP Guidelines, the Commission on Audit (COA), the Department of Budget and Management (DBM), the Department of Energy (DOE), and other concerned government agencies identified in Rule IV of the EEC-IRR, shall issue their respective necessary implementing guidelines.

SECTION 3. *Definition of Terms*. — The following terms as used in the GEMP Guidelines shall be defined as follows:

a. **Agency Rating** refers to the over-all rating of a GE or government facility showing the result of the Energy Audit following the established rating parameters and scheme.

b. **Baseline** refers to a GE's current energy load, consumption and costs, Operation & Maintenance (O&M) and other costs, and energy-consuming equipment in a government facility before implementation of a GEEP. These data are used as bases for calculating GEEP cost reductions pursuant to the approved Monitoring & Verification (M&V) Plan.

c. **Capital Expenditure (CAPEX)** is required to implement a GEEP and include, but is not limited to, the cost of equipment, engineering, procurement, construction, project management, and an implementing company's (ESCO, contractor, etc.) overhead and profit.

d. **Cost-Effective** refers to the condition whereby the CAPEX of a GEEP divided by its first year GEEP cost reductions reasonably expected to be realized by the applicable GE is less than or equal to 3-6 years. For those projects wherein cost reductions will be realized after six (6) years, these must be duly supported by complete feasibility studies including but not limited to technical evaluation, financial viability, cost benefit analysis, value for money and risk assessment.

e. **Energy Audit Team (EAT)** refers to the DOE-Energy Utilization Management Bureau (DOE-EUMB) or its duly authorized/deputized representative(s) who shall conduct unannounced inspection of any GE or government facility for the purpose of checking, monitoring, and evaluating the energy consumption, prepare the agency audit rating, review and recommend energy efficiency and conservation measures and technologies, recommend the issuance of certificate of savings, among others, to verify the energy conservation and efficiency programs as provided by the IAEECC Resolution No. 1, s. 2020. In observance of the EEC-IRR, the EAT may conduct walk-through audits, preliminary audits and/or detailed audits as needed.

f. **Energy Efficiency and Conservation Officer (EEC Officer)** refers to the person designated by the head of each GE pursuant to Section 45 of the ECC-RR and IAEECC Resolution No. 1, s. 2020.

g. **Energy Efficiency and Conservation Focal Person (EEC Focal Person)** refers to the person designated by the head of a GE at the Department-level for each of its bureaus/services/offices, including its regional or field offices, to assist the EEC Officer as provided in IAEECC Resolution No. 1, s. 2020.

h. **Energy Efficiency (EE)** refers to the way of managing and restraining the growth in energy consumption resulting in the delivery of more services for the same energy input or the same services for less energy input.

i. **Energy Efficiency Project (EEP)** refers to a project designed to reduce energy consumption and costs by any improvement, repair, alteration, or betterment of any building or facility, or any equipment, fixture, or furnishing to be added to or used in any building, facility, or vehicle including the manufacturing and provision of services related thereto: provided, that such projects shall be Cost-Effective and shall lead to lower energy or utility costs during operation and maintenance.

j. **EE Cost Reductions** refers to the amount of energy cost reduction from reducing energy consumption to produce the same output or increasing productivity with the same level of energy consumption or switching fuels, or self-generating electricity with solar, cogeneration, etc. that displaces grid purchases. These were previously referred to as savings in the EEC Act and EEC-IRR.

k. **Energy Savings Performance Contract (ESPC)** refers to a performance-based agreement between a GE and an ESCO wherein the ESCO performs EEP services and receives multi-year payments based on the agreed level of GEEP cost reductions determined according to the agreed M&V Plan prepared in accordance with the GEMP Guidelines.

l. **Energy Service Company (ESCO)** refers to a juridical entity that offers multi-technology services and goods towards developing and designing energy efficiency projects, delivering, and guaranteeing EE cost reductions, and ensuring Cost-Effective and optimal performance. Their services include energy supply and management, energy financing, technical engineering expertise and consultancy, equipment supply, installation, operation, maintenance and upgrade, and monitoring and verification of performance and EE cost reductions. Their goods include lighting, motors, drives, heating, ventilation, air conditioning systems, building envelope improvements, and waste heat recovery, cooling, heating, or other usable forms of energy control systems. The ESCO may either be a Registered ESCO or Certified ESCO as provided by DOE Department Circular No. DC2020-09-0018.

m. **Government Entities** refer to all departments, bureaus, offices, agencies, branches and instrumentalities or political subdivision, GOCCs, including its subsidiaries or other self-governing board or commission, LGUs and SUCs.

n. **Government Energy Efficiency Project (GEEP)** refers to an EEP carried out by GEs, that has been evaluated and endorsed by the DOE, and received approval of the IAEECC pursuant to the GEMP Guidelines.

o. **GEEP Cost Reductions** refer to the total of all cost reductions (sum of EE cost reductions, O&M cost

reductions, and any avoided capital expenditures) realized by a GE directly resulting from an implemented GEEP.

p. **Government Energy Management Program (GEMP)** refers to the government-wide program to reduce the government's monthly consumption of electricity and petroleum products through electricity efficiency and conservation, and efficiency and conservation in fuel use of government vehicles, among others.

q. **Government Facility** refers to any facility owned, controlled and/or managed by a GE and/or its budget.

r. **Measurement and Verification (M&V)** refers to the process of performing "measurements" to reliably determine the baseline and calculate the GEEP cost reductions realized from a GEEP by comparing the applicable baseline data before and after the implementation of the GEEP.

s. **M&V Plan** refers to the methodology prepared before implementation of an EEP describing how the GEEP cost reductions for each proposed project component will be measured, verified, and calculated after its implementation.

t. **Monthly Electricity Consumption Report (MECR)** refers to the record of monthly electricity consumption, in kilowatt hours (kWh), wherein GEEP cost reductions in terms of kWh and percentage can be derived. The MECR shall contain related information on building description, gross area, number of occupants and air-conditioned area using the form provided in Annex 1 of IAEECC Resolution No. 1, s. 2020, as may be amended or modified.

u. **Monthly Fuel Consumption Report (MFCR)** refers to the record of monthly fuel consumption of gasoline/diesel in liters, wherein GEEP cost reductions in terms of liters and percentage can be derived using the form provided in Annex 2 of IAEECC Resolution No. 1, s. 2020, as may be amended or modified.

v. **O&M Costs** refer to operational and maintenance **(O&M)** costs incurred by a GE to operate and maintain a GE and all related equipment and systems as needed for it to operate as intended.

w. **Request for Proposal (RFP)** refers to a Request for Proposal issued by a GE to select an ESCO through open announcement or invitation pursuant to the GEMP Guidelines.

PART II

Government Energy Management Program

SECTION 4. *Formulation of Energy Efficiency and Conservation Programs (EECP).* — In accordance with the policy of the government to promote the judicious and efficient utilization of energy resources, an EECP shall be formulated by each GE, highlighting energy conservation measures, target energy efficiency cost reductions, motor vehicle inventory and other strategies. The EECP shall likewise use every available energy resource efficiently and promote the development and utilization of new and alternative energy efficient technologies and systems, including renewable energy technology and systems.

The EECP shall be prepared and updated annually by the GE's EEC Officer with the assistance of EEC Focal Persons. The EECP shall be approved by the head of the GE. The EECP and its report formats will be based on templates in Annexes "A" and "B". GEs must submit their EECPs to the DOE-EUMB every first (1st) week of June of each year. DOE shall establish an online system to consolidate and review the submissions.

SECTION 5. *Components of the EECP.* — Every EECP as provided in the GEMP Guidelines shall have the following activities: implementation, monitoring and evaluation, and other support activities.

5.1 **Implementation**. This consists of the implementation and funding of GEEPs through improvement, repair, or alteration of government facilities, or through retrofitting any equipment, fixture, or furnishing to be added to or used in any government vehicle. GEEPs must apply proven energy efficiency technologies that meet DOE's Minimum Energy Performance of Products (MEPP) for energy consuming products to include but not be limited to any of the following: LED lighting (in/on buildings, streets and public street lighting); heating, ventilation and air conditioning (HVAC); building shell and fenestration (Insulation); new building constructions or renovations designed to be an energy efficient building (Green Building); purchase of new and more fuel-efficient vehicles; chillers; boilers; high-efficiency motors; waste heat recovery systems; compressed air systems; solar rooftop power generation system; solar heating system; or biomass power generation plant.

5.2 **Monitoring and Evaluation**. Consistent with IAEECC Resolution No. 1, s. 2020, GEs are required to establish monitoring systems and adhere to the reportorial requirements of the DOE. The use of Building Energy Management Systems (BEMS) or equivalent systems for the GEs shall be encouraged.

5.3 **Other Support Activities**. To ensure proper compliance of GEs with the requirements of the GEMP

Guidelines, EATs will be deployed to conduct assessment and capacity building activities. EEC cost reductions, as certified by the DOE, shall be utilized by the GEs to maintain, and improve EEC initiatives of government.

SECTION 6. *Modalities of GEEPs*. — As provided in the GEMP Guidelines, GEs may pursue GEEPs using ESCO-Based or Public Sector-Led mechanisms.

6.1 **ESCO-Based GEEPs**. The modality that allows GEs to commission ESCOs through ESPCs to develop, implement, finance, and/or perform O&M and M&V services on GEEPs from GEEP Cost Reductions. ESPCs shall be guided by the terms outlined in Annex "C" of the GEMP Guidelines. Publicly financed ESPCs shall observe provisions of relevant government rules and regulations. For ESPCs that are not publicly financed, GEs may observe financing structures presented in Annex "D" of the GEMP Guidelines.

All GEs are to publish and issue a Request for Proposal (RFP) for ESCO-Based GEEPs conforming to Annex "E" of the GEMP Guidelines which must be open to all ESCOS before the end of the 2nd quarter of each year.

6.2 **Public Sector-Led GEEPs**. The modality that allows GEs to implement, fund, and/or finance GEEPs without an ESCO and ESPC.

6.3 GEs shall review GEEP proposals using the criteria under Annex "F" with the corresponding cost benefit analyses.

6.4 An accurate baseline shall be developed by the GE before the implementation of a GEEP with the support of EE experts as provided by DOE Department Circular No. DC2021-01-0001, if required. The said baseline shall be incorporated in the RFP and documented for a period of no less than the most recent 12 months.

6.5 The M&V is required to calculate and verify the achieved GEEP cost reductions for any GEEPs implemented as guided by Annex "G" of the GEMP Guidelines or other comparable systems. The M&V shall include actual measurements of the baseline before and after the completed implementation of a GEEP as specified in the M&V Plan approved by the GE before the implementation of the GEEP. The GEs shall submit monthly developments on the implementation of the GEEPs to the DOE-EUMB. The DOE shall be authorized to establish a database system for the inventory of the GEEPs.

SECTION 7. *Submission and Approval of Proposals*. — GEs must submit their proposed GEEPs to the DOE-EUMB before September of each year. All unsolicited or late proposals will be processed in the next year.

7.1 **Endorsement of Proposals to DOE**. Only endorsed proposals with the complete documentary requirements below shall be accepted by the DOE for endorsement to the IAEECC. GEs must submit along with the proposals the certification signed by its head and endorsed by its EEC officer and/or focal person highlighting the following:

- the GEEP is consistent with the relevant GE's EECP and the applicable published DOE's MEPP and directives of the IAEECC;
- the project's energy cost reduction and CAPEX cost estimates of the GEEP are reasonable; and;
- M&V Plan of the GEEP are compliant with the GEMP Guidelines.

Submission of the said GEEP proposals with the required certification will be made to the DOE-EUMB for the approval of the IAEECC.

7.2 **Schedule of Activities for GEEPs**. To ensure the prompt submission and approval of GEEPs, the schedule of activities under Annex "H" of the GEMP Guidelines shall be observed.

SECTION 8. *Funding for GEEPs*. — Subject to existing budgeting, accounting, and auditing laws, rules and regulations, GEs may allocate funds, secure loans or enter into lease arrangements, including installment payment contracts or lease purchase agreements for purposes of financing the GEEP or making GEEP payments under an ESPC. The same appropriations can be used by the GEs to fund relevant preliminary and post-implementation activities of the GEEP including but not limited to feasibility studies and impact assessments.

The GEs may include funding requirements for GEEPs, as approved by the IAEECC, in their respective budget proposals, consistent with the usual budget preparation procedures. Multi-year funding may be sought in observance of relevant DBM issuances and other budgetary, accounting, and auditing laws, rules and regulations.

SECTION 9. *Procurement for GEEPs*. — Procurement of services and goods for the implementation of projects based on the approved proposals of GEEPs shall be pursuant to the RA 9184, or the Government Procurement Reform Act, RA 6957, as amended by RA 7718, or the BOT Law, RA 7160, or the Local Government Code of 1991, the 2013 NEDA Joint Venture Guidelines (as amended from time to time), the applicable LGU

charter, related laws, rules and regulations, to the extent applicable to the GEEPs and not otherwise modified by the GEMP Guidelines, shall apply in suppletory character.

SECTION 10. *Monitoring and Evaluation Initiatives*. — GEs are required to establish monitoring systems and adhere to the reportorial requirements of the DOE. GEs shall also be required to designate personnel to ensure proper monitoring and evaluation of EEC initiatives.

SECTION 11. *Designation of EEC Officers and EEC Focal Persons*. — Pursuant to Section 45 of the EEC-IRR and existing resolutions issued by the IAEECC, each GE must submit the name or names of the designated EEC Officers and/or EEC Focal Persons to the IAEECC through the DOE within one (1) month upon the effective date of these GEMP Guidelines and in the event of any change in the EEC Officer and/or EEC Focal Person within one (1) month from such change.

EEC Officers and Focal Persons shall assume the functions stated in IAEECC Resolution No. 01, s.2020. The said personnel shall also perform other functions as directed by the IAEECC.

SECTION 12. *Regular Energy Monitoring and Management*. — GEs are to implement the following as part of their energy monitoring and management responsibilities under the GEMP:

12.1 Electricity Consumption

a. Each GE shall submit its monthly electricity consumption in kilowatt hours (kWh), based on electricity bills issued by the Distribution Utility (DU), Electric Cooperative (EC), or Retail Electricity Supplier (RES) to the DOE-EUMB not later than 15 days after the reference month through the MECR Form.

b. All GEs shall adjust their air-conditioning unit thermostat to not lower than 24 degrees Celsius. The operation or use of air-conditioning system shall be limited to six (6) hours and may be extended to a maximum duration of eight (8) hours during the summer months (March to May) upon the discretion of the head of the agency. Buildings and/or facilities with specific temperature requirements such as classified military facilities, Bangko Sentral ng Pilipinas printing and minting areas, medicine stock areas in government hospitals, computer server rooms and data bank centers, among others shall be allowed to extend beyond eight (8) hours: *Provided*, That the head of the agency supervising such areas shall secure a Memorandum of Exemption (MOE) from the DOE, thereafter, upon verification, the EAT shall issue a MOE to the concerned Agency.

c. Whenever practical, the air-conditioning unit shall be set at fan mode from 12 noon to 1 pm. Lights and computers of all GEs and LGUs shall be turned off during lunch breaks and after office hours, except in offices where continuous work or "No Noon Break" policy is being implemented.

d. The GE shall encourage the use of stairs instead of elevator in going one (1) floor up or down. A sign to this effect shall be placed conspicuously at the entrance of the elevator for the proper guidance of agency employees and visitors: *Provided, That* the physically-challenged, pregnant women and senior citizens and those with heavy loads shall not be prevented from using the elevator to reach each floor.

12.2 Fuel Consumption

a. Each GE shall submit its monthly gasoline and diesel consumption in Liters (L), based on monthly withdrawal from the fuel allocation and official receipt on a per vehicle basis to the DOE-EUMB not later than 15 days after the reference month through the MFCR Form.

b. To ensure that the fleets of GEs are fuel efficient, re-fleeting programs can be included as GEEPs in the EECP.

c. All GEs shall implement policies for adoption of the following maintenance and driving tips such as but not limited to: proper inflation and alignment of tires and proper alignment and balancing of wheels; periodic/regular oil change and oil filter replacement; regular engine tune-up and replacement of air and fuel filters; proper scheduling of daily trips to avoid unnecessary short trips; smooth/moderate acceleration of vehicles and driving at a steady pace to avoid unnecessary repetitious speeding up and slowing down; strict prohibition on idling of engines when vehicle is parked; and prohibition on overloading of vehicle.

d. All GEs shall have a motor pool facility and a highly trained automotive mechanic that will oversee the regular maintenance of each government vehicle.

SECTION 13. *EE Cost Reduction Targets and Base Period*. — All GEs are encouraged to reduce their electricity and fuel consumption by at least ten percent (10%) from the base period of the average monthly electricity and fuel consumption from January to December 2015 as provided in IAEECC Resolution No. 01, s.2020

or from appropriate base period applicable to the GE as approved by the DOE.

For GEs that have no January to December 2015 data, the cost reductions shall be computed from a base period reflecting the first year of complete monthly energy consumption after 2015. Cost reductions can only be computed by GEs with complete data for one (1) year.

SECTION 14. *Energy Consuming Products (ECPs).* — GEs shall purchase ECPs compliant with the DOE-administered Philippine Energy Labeling Program (PELP) and MEPP. All are also encouraged to develop a phased-in replacement program for other ECPs.

SECTION 15. *Government Vehicles*. — In the purchase of government vehicles, GEs are encouraged to purchase energy efficient vehicles and those using alternative fuels for replacement, as may be endorsed by the DOE.

The use of government vehicles for purposes other than official business shall not be allowed: *Provided That*, in every case, the trip ticket authorizing the use of the vehicle shall be displayed on the windshield or in a conspicuous place on the vehicle: *Provided Further That*, vehicles used by law enforcement and military entities of the government shall not be covered by this provision.

The use of government vehicles on Saturdays, Sundays, legal holidays, or out of the regular office hours or outside the route of the officials or employees authorized to use them, or by any person other than such official or employee, shall unless properly authorized, be *prima facie evidence* of the violation of this paragraph.

SECTION 16. *Buildings and Facilities.* — The National Building Code, Green Building Code and the Guidelines for Energy Conserving Design for Buildings shall be adhered to for new construction and/or retrofitting of existing buildings and facilities.

SECTION 17. *Other Support Activities*. — To ensure proper compliance of GEs with the requirements of the GEMP Guidelines, EATs will be deployed to conduct assessment and capacity building activities. EEC cost reductions, as certified by the DOE, shall be utilized by the GEs to maintain, and improve EEC initiatives of government.

17.1 **Deployment of EAT**. Upon issuance of the GEMP Guidelines, the deployed EAT shall have the following duties provided by the DOE DC No. DC2021-01-0001. Other functions assigned by the IAEECC shall be performed by the EAT. The DOE may allocate funds for the audit of GEs by DOE-EUMB certified and registered ESCOs. The DOE may also establish partnerships with selected GEs for the conduct of the audits. This is to increase the coverage of audits for GEs.

17.2 **Capacity building**. The DOE shall ensure that GEs are trained on relevant concepts of EEC, implementation of the GEEPs and relevant provisions of EEC-IRR. Assessments, surveys, researches and studies relevant to improving the capacity of GEs in implementing and complying with the GEMP shall be conducted by the DOE. For these purposes, the DOE may allocate funds and establish partnerships with GEs, non-government and private organizations.

SECTION 18. *EEC Awards and Incentives*. — The GEs are authorized, upon issuance of the DOE certificate of EE cost reductions, to use the savings from EE cost reductions for improvements in energy efficiency and conservation in the GE's facilities, as well as providing other incentives, subject to budgetary, civil service, and auditing laws, rules and regulations, including the General Provisions of the General Appropriations Act on the use of savings, as well as guidelines on the release of funds, as issued by the DBM.

18.1 For GEs which attained ten percent (10%) EEC cost reductions or more, they may be allowed to use one hundred percent (100%) of their accumulated EE cost reductions in electricity consumption (in kWh) or petroleum products (in Liters).

18.2 For GEs that have attained less than ten percent but not lower than five percent (5%) EEC cost reductions, the use of its EE cost reductions shall be limited to only fifty percent (50%) of their accumulated EE cost reductions in electricity consumption (in kWh) or petroleum products (in liters). GEs that have attained less than five percent (5%) EEC cost reductions will not be eligible to utilize the same.

18.3 Generated savings from EE Cost Reductions by the GE, as approved by its head or its authorized representative, shall be utilized for improving the GE's facilities to improve energy efficiency and conservation. The head of the GE may likewise recognize or provide other incentives to personnel for EEC incentives, subject to budgetary, civil service, and auditing laws, rules, and regulations.

18.4 The head of the GE or its authorized representative may establish its own award and incentive system for its employees to encourage efforts which contribute to EE cost reductions. Forms of awards and incentives may observe the provisions of Civil Service Commission (CSC) MC No. 01, Series of 2001 on the Program on Awards, and Incentives for Service Excellence (PRAISE), and DBM Circular Letter No. 2008-9, s. 2008.

18.5 **Recognition**. GEs which attained at least ten percent (10%) EE cost reductions in electricity and fuel consumption shall be awarded by the DOE, through the EAT, with a Certificate of Recognition in order to motivate and inspire public servants to help implement the EECP. The recognition shall be conferred during the National Energy Consciousness Month (NECM) every December. The following are the criteria for the award: effectiveness of strategies employed; level of EE cost reductions in fuel and electricity; accurateness and clarity of the report; completeness of report; and promptness in submitting report.

PART III

Other Provisions

SECTION 19. *Compliance and Sanctions*. — Non-compliance with the provisions of the GEMP Guidelines shall subject any official to administrative sanctions as provided by applicable laws and shall be without prejudice to appropriate criminal and civil liabilities provided under Section 80 of the EEC-IRR.

If the GE continuously fails to observe the provisions of the GEMP Guidelines, the DOE shall issue a written notice to the GE. If no action has been done by the GE within seven (7) working days to resolve the issue, DOE shall file the appropriate derogatory report to the relevant oversight body including but not limited to the Governance Commission (GCG) on GOCCs, Department of the Interior and Local Government (DILG), and the DBM.

SECTION 20. *Information, Education and Communication Activities*. — Pursuant to Section 85 of the EEC-IRR, the DOE shall develop and undertake a national awareness campaign to ensure compliance with the GEMP Guidelines.

SECTION 21. *Repealing Clause & Suppletory Application*. — The provisions of other circulars, orders, issuances, rules and regulations, which are inconsistent with the provisions of the GEMP Guidelines are hereby repealed, amended, modified or superseded accordingly. With respect to the GEEPs, the provisions set forth under RA 9184 or the Government Procurement Reform Act, RA 6957, as amended by RA 7718, or the BOT Law, RA 7160, or the Local Government Code of 1991, the 2013 NEDA Joint Venture Guidelines (as may be amended from time to time), the applicable LGU charter, related laws, rules, and regulations, shall apply in suppletory character.

SECTION 22. *Separability Clause*. — If for any reason, any section or provision of the GEMP Guidelines is declared unconstitutional or invalid, such parts not affected shall remain in full force and effect.

ANNEX B

Annex A
Energy Efficiency and Conservation Plan

Annex B
Status of the Energy Efficiency and Conservation Plan

Annex C
ESPC Terms and Conditions

a. The objective of the ESPC is to clearly explain the agreed terms and conditions between a GE and an ESCO under which the ESCO will develop, implement, and finance an EEP in the applicable government facilities, as well the method for the ESCO to calculate, bill and receive GEEP payments.

b. All GEs are authorized to enter an ESPC, which materially incorporates the terms and conditions, with a registered or certified ESCO in good standing.

c. The ESPC term shall commence upon completed construction of the GEEP and cannot exceed the average useful life of the assets or fifteen (15) years, or whichever is lower.

d. The ESPC shall include the amount of GEEP payments made to the ESCO and the related M&V and calculation methodology.

e. The GE shall include the funding of GEEP payments in its annual budget for the duration of the ESPC term to ensure compliance.

f. All GEEP payments paid to the ESCO cannot exceed the applicable baseline costs before implementation of the GEEP, subject to adjustments for any rate increases, supplemental fluctuation in energy demand or consumption or O&M cost due to changes on the use of the government facility or requirements to meet new health and safety standards, etc.

g. The ESPC shall contain, as a minimum, the following terms and conditions:

i. Scope of work describing the services offered, including details of equipment to be installed or retrofitted as well as the specifications of each component, its installation and commissioning.

ii. Commissioning requirements to be met by the GEEP before operating commercially.

iii. Method for calculating the baseline, GEEP cost reductions and performing M&V of the GEEP.

iv. Terms and conditions of GEEP payments by the GE to ESCO.

v. GEEP financing terms and conditions.

vi. Construction and O&M responsibilities of ESCO and the GE.

vii. Standards of service to be provided by ESCO.

viii. EEP asset ownership rights and responsibilities of ESCO and the GE to include: (1) prohibited use of assets for purposes other than agreed ones; (2) procedures for the transfer and/or return of the assets.

ix. *Force majeure* events.

x. Default events and remedies by ESCO and the GE.

xi. Insurance.

xii. Term of the ESPC (shall not exceed the average useful life of EEP assets);

xiii. Termination provisions that include a 'step-in' right mechanism by the GE and financiers in the event of a default by ESCO.

xiv. Dispute resolution procedures.

xv. ESCO assignment rights.

xvi. Confidentiality restrictions.

xvii. Intellectual property rights.

xviii. Representations, warranties, and notifications, and

xix. Compliance with all applicable laws, rules, and regulations.

h. The ESCO may modify cost reductions calculations based on any of the following:

i. Subsequent material changes to the baseline energy consumption not due to the EEP;

ii. Changes in the number of days in the utility billing cycle;

iii. Changes in the total square footage of the facilities;

iv. Changes in the operational schedule of the project site;

v. Material changes in the weather or project site operating temperature;

vi. Material changes in the energy consuming equipment at the project site; or

vii. Any other material changes not caused by the EEP which reasonably would be expected to modify energy use or energy costs.

i. Any GE that enters into an ESPC shall report estimated EEP cost reductions of the GEEP to the DOE when the ESPC is executed.

j. The ESPC shall require the ESCO to provide to the GE an annual reconciliation of GEEP payments made based on the agreed M&V in the ESPC.

k. The ESPC shall require the ESCO to calculate and be obligated to reimburse the GE for any shortfall in the guaranteed GEEP cost reductions level identified in the ESPC.

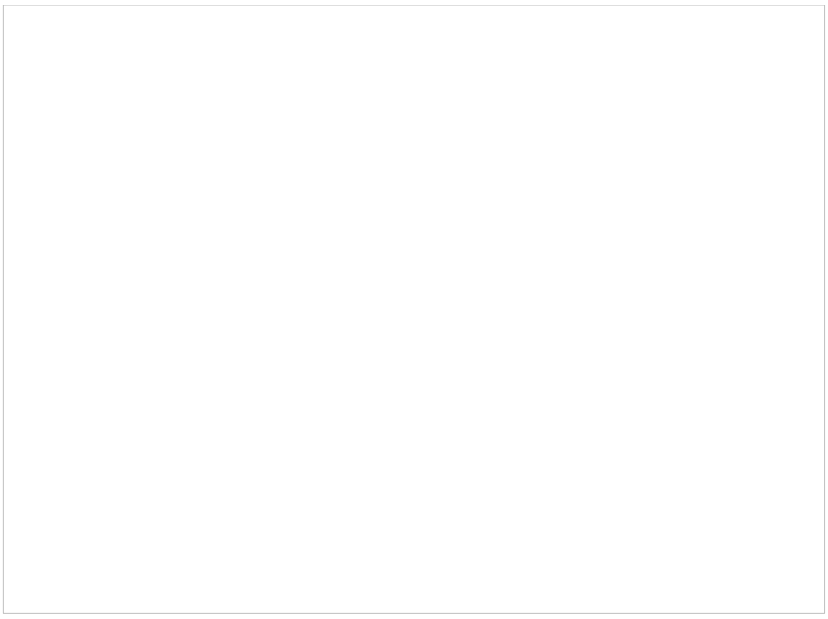
l. The ESPC shall include provisions for ensuring the security of the GE with regards to the supply and management of their power supplies.

Annex D
Esco Business Model and Financing Structures

1. ESCOs assume all EEP performance and funding risks, which includes providing working capital to try to develop an EEP that can be paid from EE Cost Reductions and financing 100 percent of the ESCO's CAPEX in exchange for getting repaid from EE cost reductions realized by a GE under a long-term ESPC.

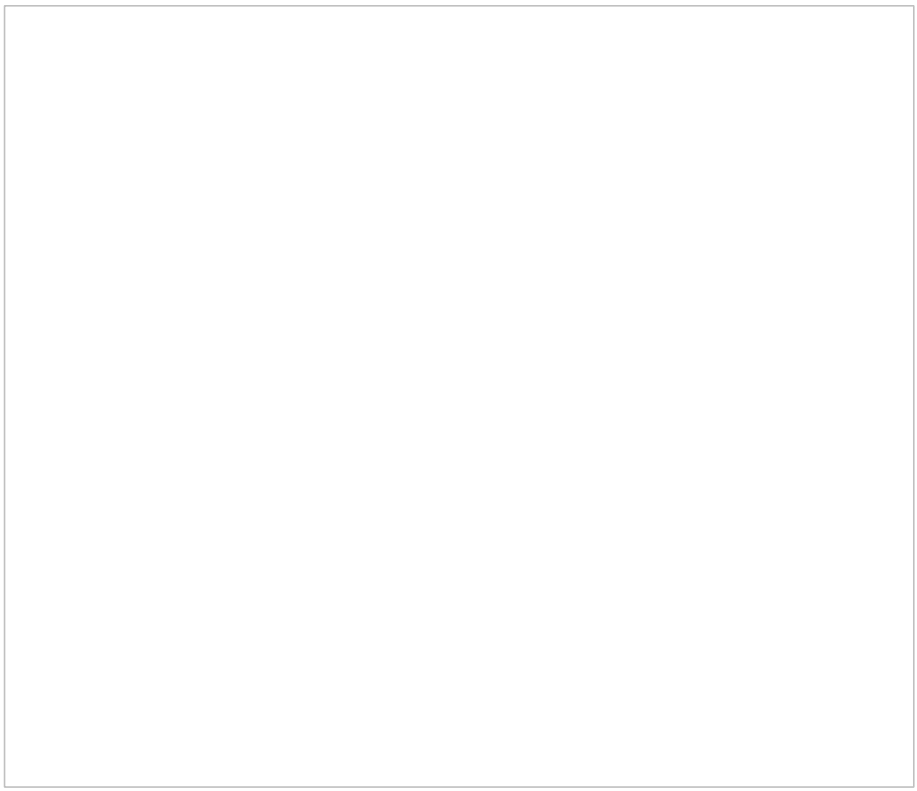
2. The two most common performance-based financing structures that can be used by ESCOs are "Shared" and "Guaranteed." A brief description of each structure is as follows:

a. ***Shared*** is an arrangement whereby an ESCO funds or arranges financing for its CAPEX to develop/implement a GEEP in exchange for being paid a majority (~80-90 percent) of the EEP's Cost Reductions by the GE over a multi-year ESPC. The GE pays a fixed percentage or amount of the GEEP's cost reductions to the ESCO which is large enough for the ESCO to repay its CAPEX financing, cover its M&V costs, and compensate it for assuming the long-term savings and credit risks as well as performing ongoing M&V and other services. Under this structure, the GE has no contractual obligation to repay the CAPEX, which creates a lot more risk for the ESCO versus the guaranteed savings structure because the ESCO must not only assume the GEEP performance risk, but also credit risk of the GE. It typically requires an equity investment, which in combination with the higher risk assumed by the ESCO, carries a much higher financing cost than the guaranteed savings structure (see below diagram).



b. ***Guaranteed*** is an arrangement whereby a GE funds or arranges financing for the CAPEX of an EEP developed/implemented by an ESCO in exchange for the ESCO: 1) guaranteeing to the GE that it will realize sufficient future GEEP cost reductions to cover the GE's amortized repayment and financing costs of the CAPEX and 2) being paid by the GE a share of any EEP cost reductions more than its guaranteed amount over the ESPC term. If the cost reductions fall short of the ESCO's guaranteed amount, the ESCO will reimburse the GE for the shortfall. If the realized cost reductions exceed the ESCO's guaranteed amount, the ESCO typically shares a % of the excess based on the level of risk assumed and the extent of ongoing services provided by the ESCO.

Under the guaranteed structure, the GE is totally responsible to repay the CAPEX financing and the ESCO bears no direct contractual obligation to repay the GE's financing or funding source. In other words, the ESCO's guarantee is not a guarantee of payment to the GE's financier; but is a guarantee of savings to the GE to typically cover its debt service payments (see below diagram).



Annex E
RFP

A GE shall issue an RFP to registered or certified ESCOs. The ESCO must submit their qualifications and a project proposal that identifies components in the RFP's government facilities. The RFP shall comply with the following guidelines:

The RFP shall include, but not be limited to:

i. Name, address of the GE and its contact person

ii. The date, time, and place where proposals must be received

iii. Name, address, age, description of each government facility in the RFP

iv. Baseline data of each RFP facility to include:

- Description of major activities and energy requirements
- Amount of energy consumption and cost for the last 12 months by type of fuel (*i.e.*, electricity, gas, coal, etc.)
- Copy of last 3 bills from supplier for each type of fuel
- List of major energy consuming equipment and systems by size capacity, make, model, year in each RFP facility

v. A requirement for ESCO proposals to include considerations as follows:

- Thoroughness and comprehensiveness of the proposal;
- Relevant experience of ESCO with its proposed project components and quality of technical approach;
- Viability of each project component and its integration into the EEP;
- Reasonableness of the estimated GEEP cost reductions and CAPEX;
- Overall attractiveness and financial value of the proposed ESPC terms/conditions to the GE;
- Environmental and other benefits to the GE and its government facilities.

vi. GE's evaluation criteria for assessing the ESCO proposals

Annex F
Project Proposals

ESCO-Based Projects

The ESCO's project proposal shall reflect its preliminary components to be integrated into a GEEP, based on a site visit and the unverified and unmeasured data provided by the GE in the RFP. It shall contain the preliminary GEEP cost reductions and CAPEX estimates for each project component along with a proposed ESPC structure, financing and other commercial terms for the total GEEP and the following:

a. Copy of ESCO certification;

b. Relevant experience of ESCO on its proposed project components and quality of technical approach;

c. Description of each measure and rationale for its cost reduction potential;

d. Detailed calculations, methodologies, technical and financial assumptions for GEEP cost reductions and CAPEX costs;

e. Baseline assumptions on the current energy consumption and costs for each fuel, utility type and costs, and the RFP's government facilities' operating conditions; and

f. Description of the assumed energy profile, major energy-consuming equipment and how/where most energy is consumed by type in the RFP's government facilities.

Public Sector-led Projects

The project proposal shall reflect its preliminary components, financing and other commercial terms for the total GEEP and the following:

a. Relevant experience of GE on its proposed project components and quality of technical approach;

b. Description of each measure and rationale for its cost reduction potential;

c. Detailed calculations, methodologies, technical and financial assumptions for GEEP cost reductions and CAPEX costs;

d. Baseline assumptions on the current energy consumption and costs for each fuel, utility type and costs, and the government facilities' operating conditions; and

e. Description of the assumed energy profile, major energy-consuming equipment and how/where most energy is consumed by type in the government facilities.

Annex G
M&V Concepts

1. Since ***M&V*** is ***the meter of an EEP***, it is required to calculate achieved EE cost reductions with any degree of accuracy or reliability. Calculating EE cost reductions is unique in that it comes from the absence of energy use and thus cannot be measured like kilowatt hours (kWhs) generated from traditional power or renewable energy supply-side project. Consequently, EE cost reductions are determined by analyzing measured energy use after implementation of an EEP versus the ***'Energy Baseline'*** before its implementation.

The purpose of M&V in an ESPC is to minimize risks by reducing uncertainty and allocate risks to the responsible parties. While M&V is the last operational step in an ESCO business model, it must be specifically defined or explained in a M&V Plan. A M&V plan should describe how the EEP's performance will be evaluated and by whom. M&V plan

development requires the creation of an accurate energy baseline, which is fundamental to an EEP, and cooperation between the ESCO and the GE while also embracing the concepts below.

2. Achieved EE Cost Reductions from an EEP are determined by comparing energy usage before and after the EEP's completed installation. The condition of before is referred to as the baseline and after is referred to as post-installation or the performance period. The determination of EE cost reductions includes adjustments for ***'Independent Variables'*** that affect energy usage in the facility but are not caused by or related to the EEP. These adjustments include changes between the baseline and performance period for such things as weather and occupancy conditions for commercial buildings and the type of products manufactured, number of operating shifts, raw materials consumed and load requirements for industrial facilities.

3. The analysis of energy usage for baseline and post-installation conditions in determining EE cost reductions can be accomplished by applying one of IPMVP's four (4) M&V options, briefly summarized in the below table and from the *IPMVP Core Concepts* document owned and managed by the non-profit Efficiency Valuation Organization **(EVO)**, containing the generally accepted M&V principals to measure, verify and calculate the EE cost reductions of EEPs, which can be downloaded at: http://www.evo-world.org/.

If only a specific scope of a system is measured and evaluated, not involving the whole system, it is considered as *retrofit isolation*. If the performance of a part or several parts of the facility affecting the whole facility and energy consumption are evaluated, this is a *whole facility* approach.

Retrofit Isolation	Whole Facility
Option A — Partial and/or one-time measurement	**Option C** — Energy analysis of the whole facility
Option B — Periodic or continuous measurement	**Option D** — Computer Simulation

Selecting the best M&V option and determining desired level of accuracy within each option for calculating the EE cost reductions, depend on the complexity of project components, the potential for performance changes, the estimated value of EE cost reductions and desired level of accuracy.

4. The energy baseline is the critical component of M&V, and it **must be documented before EEPs are installed** since one cannot go back and create a baseline that no longer exists after the inefficient equipment or systems are replaced. The baseline documentation should include:

a. identification of the baseline period;

b. baseline energy consumption and demand data;

c. independent variable data coinciding with the energy data (*e.g.*, production data, ambient temperature);

d. static factors coinciding with the energy data include: 1) occupancy type, density and periods and 2) operating conditions for each baseline operating period and season, other than the independent variables;

e. description of any baseline conditions that fall short of required conditions;

f. details of adjustments that are necessary to the baseline energy data to reflect the energy management program's expected improvement from baseline conditions;

g. size, type and insulation of any relevant building envelope elements such as walls, roofs, doors, windows;

h. equipment inventory;

i. equipment operating practices;

j any design, install, calibrate, and commission and any special measurement equipment that is needed under the plan;

k. significant equipment problems or outages during the baseline period.

5. The baseline documentation typically requires well-documented short-term metering activities. The extent of this information is determined by the measurement boundary chosen or the scope of the EE cost reductions determination. If the whole-facility M&V methods are employed, all facility equipment and conditions should be documented.

6. The baseline can be affected by many factors and changes that have occurred during the performance period, which may require baseline adjustments consisting of the following two types:

a. Routine adjustments — For any energy governing factors expected to change routinely during the reporting period (such as weather or production volume), a variety of techniques can be used to define the adjustment methodology. Techniques may be as simple as a constant value (no adjustment) or as complex as a several multiple parameter non-linear equations each correlating energy with one or more independent variables. Valid mathematical techniques must be used to derive the adjustment method for each M&V plan.

b. Non-routine adjustments — For those energy governing factors which are not usually expected to change, (such as: the facility size, the design and operation of installed equipment, the number of weekly production shifts, or the type of occupants) the associated static factors must be monitored for change throughout the reporting period.

Annex H
Schedule of Activities of DOE for Preparation and Approval of GEEP Proposals from GES

DATE/PERIOD	ACTIVITIES	EXPECTED OUTPUT
January-March 30	• Capacity Building for GEEP Proposal Development	• Draft GEEP Proposals
June 1-September 1	• Call for GEEP Proposals	• Endorsed GEEP Proposals for Approval of the IAAEEC
September 30	• Approval of GEEPs through the IAAEEC	• List of Approved GEEPs for Funding
October-December	• Amended GEEP proposals for reassessment and approval of the IAEECC	• List of Revised GEEPs Approved by the IAEECC
January-February (following year)	• Expected deadline of submission of proposed budgets for GEs through the DBM	• Fund Availability for GEEPs